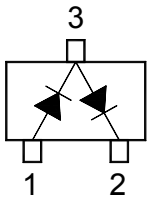
Switching Diodes

■ **Simplified outline(SOT-23)**

■ Features

- Fast Switching Speed
- For General Purpose Switching Applications.
- High Conductance



■ Marking

Marking	A7

■ Absolute Maximum Ratings Ta = 25℃

Parameter		Symbol	Rating	Unit
Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Continuous Reverse Voltage		V_R	75	
Forward Current (Double Diode Loaded)		I_F	125	mA
Forward Current (Single Diode Loaded)			215	
Repetitive Peak Forward Current		I_{FRM}	450	
Non-repetitive Peak Forward Surge Current	t=1s	I_{FSM}	0.5	A
	t=1ms		1	
	t=1us		1.5	
Power Dissipation		P_d	350	mW
Junction Temperature		T_J	150	℃
Storage Temperature range		T_{stg}	-65 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	I_R= 100 uA	100			V
Forward voltage	V_F	I_F= 1 mA			0.715	
		I_F= 10 mA			0.855	
		I_F= 50 mA			1	
		I_F= 150 mA			1.25	
Reverse voltage leakage current	I_R	V_R= 25 V			30	nA
		V_R= 75 V			1	uA
		V_R= 25 V , T_J=150℃			30	
		V_R= 75 V , T_J=150℃			50	
Junction capacitance	C_j	V_R= 0 V, f= 1 MHz			1.5	pF
Reverse recovery time	t_{rr}	I_F=I_R=10mA,I_R=1mA, R_L=100Ω			4	ns

■ Typical Characterisitics

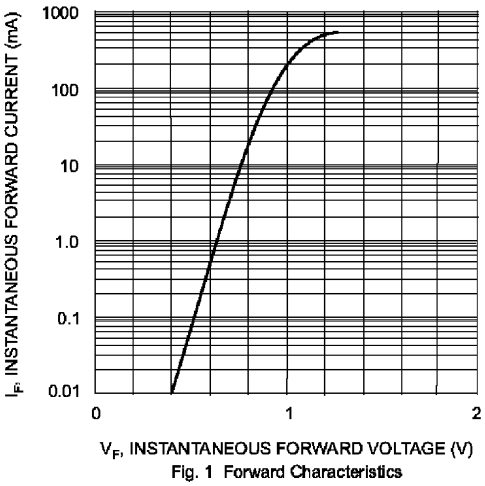


Fig. 1 Forward Characteristics

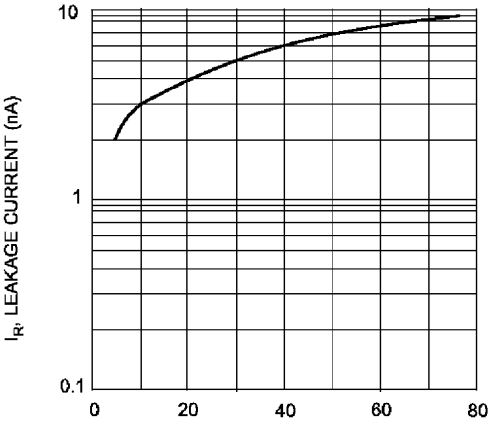


Fig. 2 Typical Leakage Current vs Reverse Voltage

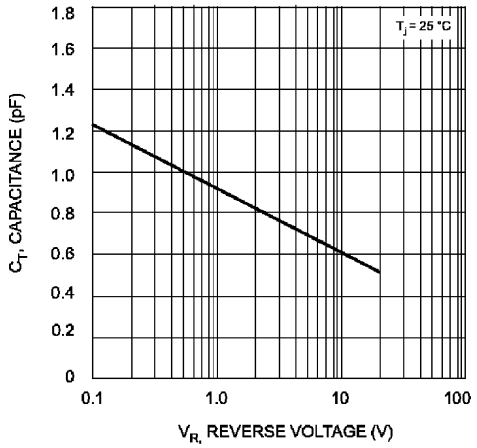
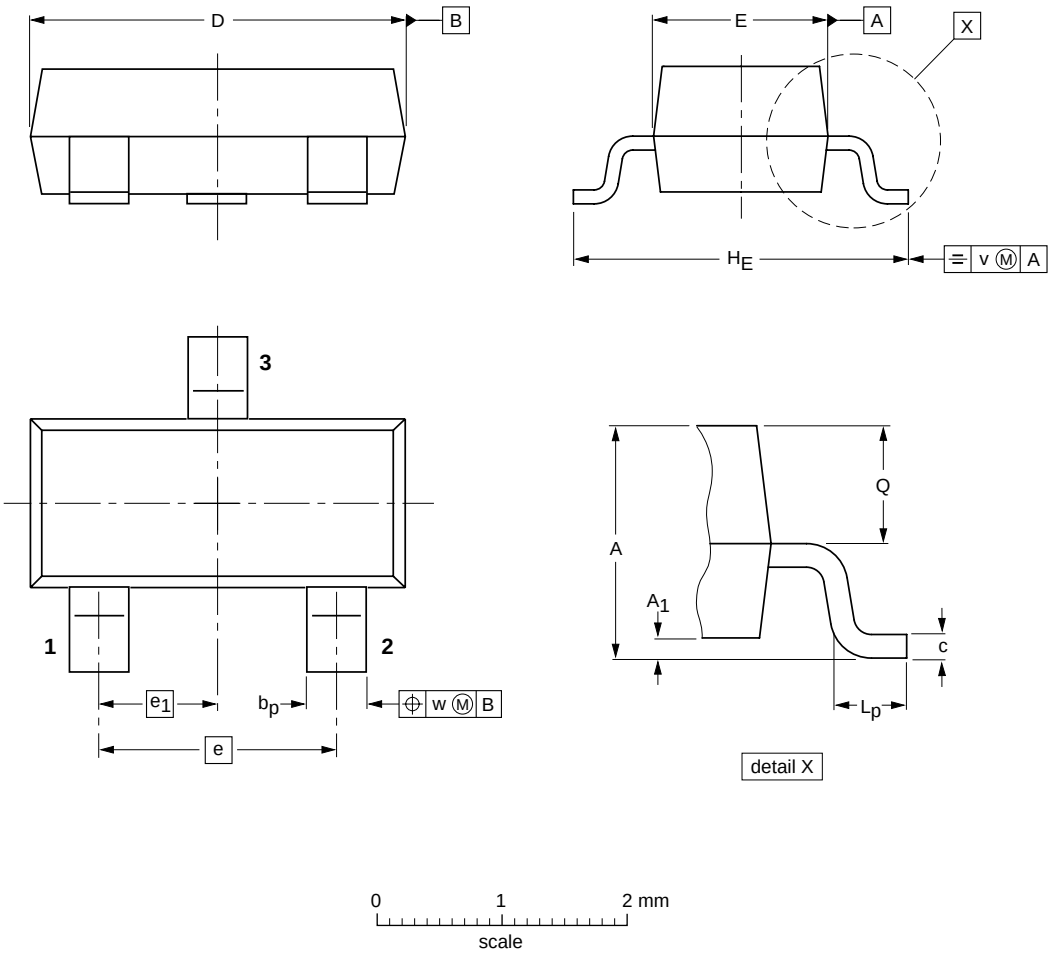


Fig. 3 Typical Total Capacitance vs Reverse Voltage

■ SOT-23



DIMENSIONS (mm are the original dimensions)

UNIT	A	A_1 max.	b_p	c	D	E	e	e_1	H_E	L_p	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1